

12. (Amended) A safety garment having high visibility and flame resistant characteristics formed substantially from a fabric comprising:

- A2
- (a) yarns consisting essentially of strands of a modacrylic material; and
 - (b) a dye applied to said fabric; and
 - (c) wherein said dyed fabric meets [both] the American National Standard Institute standard ANSI/ISEA-107 minimum conspicuity level class requirements for occupational activities for high-visibility safety apparel and the American Society for Testing and Materials standard ASTM F-1506 for flame resistance.

A3

21. (New) The fabric of Claim 1 wherein the dye is a cationic dye.

22. (New) The safety garment of Claim 12 wherein the dye is a cationic dye.

Remarks

Claims 1-8 and 12-17 remain in the case. Additionally, new Claims 21 and 22 have been added. The Examiner has rejected Claims 9-10 and 18-19 under 35 U.S.C. 112, first paragraph, as not being enabled described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The Examiner has also rejected Claims 1-2, 6, 11-13, 16 and 20 under 35 U.S.C. 102(b) as being anticipated by Montgomery et al. (U.S. Patent No. 5,033,262). Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery et al. as applied to Claims 1-2, 6, 11-13, 16, and 20, and further in view of Jones et al. (U.S. Patent No. 3,670,068). Claims 4-5, 8, 14-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery et al. as applied to Claims 1-2, 6, 11-13, 16, and 20.

Applicant appreciates the courtesies extended to Applicant's counsel during the interview held on May 21, 2003 with Examiners Cole and Torres-Velazquez. As a result of that interview, the following remarks are provided.

The Examiner's Rejections Under 35 U.S.C. 112, First Paragraph, Should Be Withdrawn

The Examiner has rejected Claims 9-10 and 18-19 under 35 U.S.C. 112, first paragraph, on the basis that the Specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate with the scope of the claims. Applicant has amended Claims 1 and 12 to clarify that fabric and apparel formed therefrom meets the American National Standard Institute standard ANSI/ISEA-107 minimum conspicuity level class requirements for occupational activities for high-visibility safety apparel. Claims 9-11 and 18-20 are herein canceled.

The Examiner's Rejections Under 35 U.S.C. 102(b) Should Be Withdrawn

Both the Patent Office and the CAFC (formerly the CCPA) have historically required that a single reference teach each and every element of the claim. That requirement is clear and unequivocal. Atlas Powder v. I.E. DuPont, 750 F.2d 1569, 224 USPQ 409 (CAFC 1984). James Bury Corp. v. Litton Industrial Products, 750 F.2d 1556, 225 USPQ 253 (CAFC 1985).

Claims 1-2, 6, 11-13, 16, and 20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Montgomery et al. (U.S. Patent No. 5,033,262). As discussed during the interview on May 21, 2003, Claims 1 and 12, as amended, and thus all of the claims, require that the yarn comprising Applicant's invention consists essentially of strands of modacrylic material. In contrast, Montgomery et al. describes a corespun yarn having a core of high temperature resistant fibers (aramids), a core wrapper of low temperature resistant fibers, and an outer sheath of low temperature resistant fibers covering the core wrapper. In Example 3 of the Montgomery et al. specification, modacrylic fibers may be substituted for cotton fibers of the outer sheath so that the resulting fabric may be dyed with an International Orange dye formulation. In this regard, the modacrylic then makes up 20-50% of the corespun yarn. Thus, Montgomery et al. does not disclose a structure consisting essentially of modacrylic material and, thus, does not recognize that such a yarn and fabric structure can provide flame resistance without the need for additional flame retardant chemical addition.

The Examiner's Rejections Under 35 U.S.C. 103(a) Should Be Withdrawn

The CAFC (and the CCPA before it) have repeatedly held that, absent a teaching or suggestion in the primary reference for the need, arbitrary modifying of a primary reference or combining of references is improper. The ACS Hospital Systems, Inc. v. Montefiore Hospital,

732 F.2d 1572, 1577. 221 USPQ 929, 933 (Fed. Cir. 1984). In re Gieger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery et al. as applied to Claims 1-2, 6, 11-13, 16, and 20, and further in view of Jones et al. (U.S. Patent No. 3,670,068). Claims 4-5, 8, 14-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery et al. as applied to Claims 1-2, 6, 11-13, 16, and 20.

Notwithstanding that Montgomery et al. fails to disclose Applicant's claimed fabric construction, attempting to modify Montgomery et al. with Jones et al. does not help. Even if Jones et al. is combined with Montgomery et al., there is no teaching, suggestion, or motivation to construct Applicant's fabric. With respect to Claims 3 and 7, Jones et al. is directed to a process for preparing shaped articles from aqueous solutions of acrylonitrile-vinylidene chloride copolymers. Jones et al. does not disclose the end uses, and more specifically, does not disclose or suggest the use of these copolymers in flame-resistant and high visibility fabric and apparel. In fact, Jones et al. does not with any specificity describe the nature of the shaped articles. Applicant respectfully submits that there would be no motivation to for one of ordinary skill to modify the modacrylic material to have the attributes of Jones et al. since Jones et al. has no disclosed relevance to flame resistance or apparel.

As before, Montgomery et al. fails to disclose the elements of Applicant's claimed invention. However, with respect to Claims 4-5, 8, 14-15, and 17, Applicant respectfully disagrees with the Examiner's assertion that the optimization of mechanical properties would have been obvious at the time of the invention. Montgomery et al. teaches nothing about mechanical properties. Again, Montgomery et al. is primarily concerned with weight and comfort. Further, Montgomery et al. does not acknowledge any standards for the mechanical performance of fabric. Since Montgomery et al.'s core wrapper and outer sheath are expected to char, any strength resides in the aramid core, which is a substantially different material from the modacrylic construction of the present invention.

Also, as discussed during the interview on May 21, 2003, if there is no anticipation under 102(b), then the rejections under 103(a) should fall.

Conclusion

Applicant believes that this case is now in condition for an immediate allowance with Claims 1-8 and 12-17, and such action is respectfully requested. If any issue remains unresolved, Applicant's counsel would appreciate the opportunity for a telephone interview to expedite allowance.

If it has not yet been done, please change the mailing address for all correspondence in this case as follows:

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please cancel Claims 9-11 and 18-20 without prejudice or disclaimer of the subject matter thereof.

Please amend the claims as follows:

1. (Amended) A fabric for use in safety apparel comprising:
 - (a) yarns consisting essentially of [formed from] strands of a modacrylic material;
and
 - (b) a [cationic] dye applied to said fabric; and
 - (c) wherein said dyed fabric meets [both] the American National Standard Institute standard ANSI/ISEA-107 minimum conspicuity level class requirements for occupational activities for high-visibility safety apparel and the American Society for Testing and Materials standard ASTM F-1506 for flame resistance.

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 - (b) a [cationic] dye applied to said fabric; and
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activities for high-visibility safety apparel and the American Society for Testing and Materials standard ASTM F-1506 for flame resistance.

21. (New) The fabric of Claim 1 wherein the dye is a cationic dye.
22. (New) The safety garment of Claim 12 wherein the dye is a cationic dye.